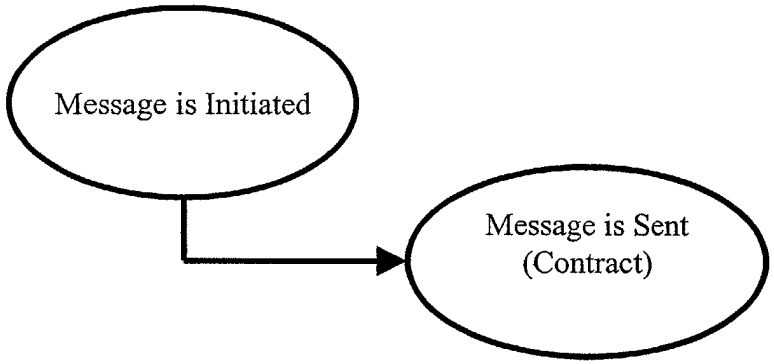

Figure 1

PRIOR ART

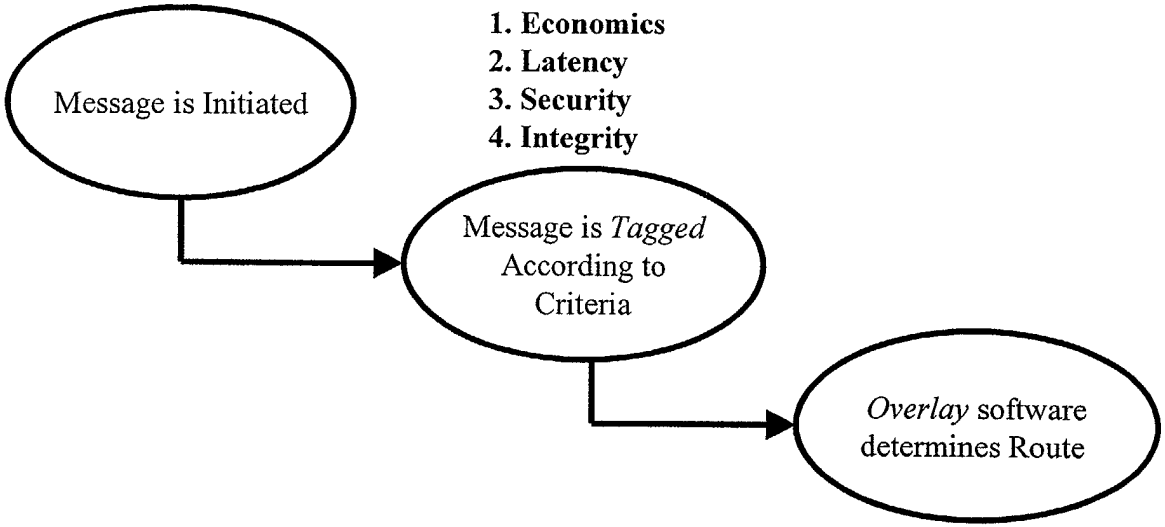
Message is Initiated
1. Economics
2. Latency
3. Security
4. Integrity
Message is *Tagged* According to Criteria
Overlay software determines Route

Figure 2

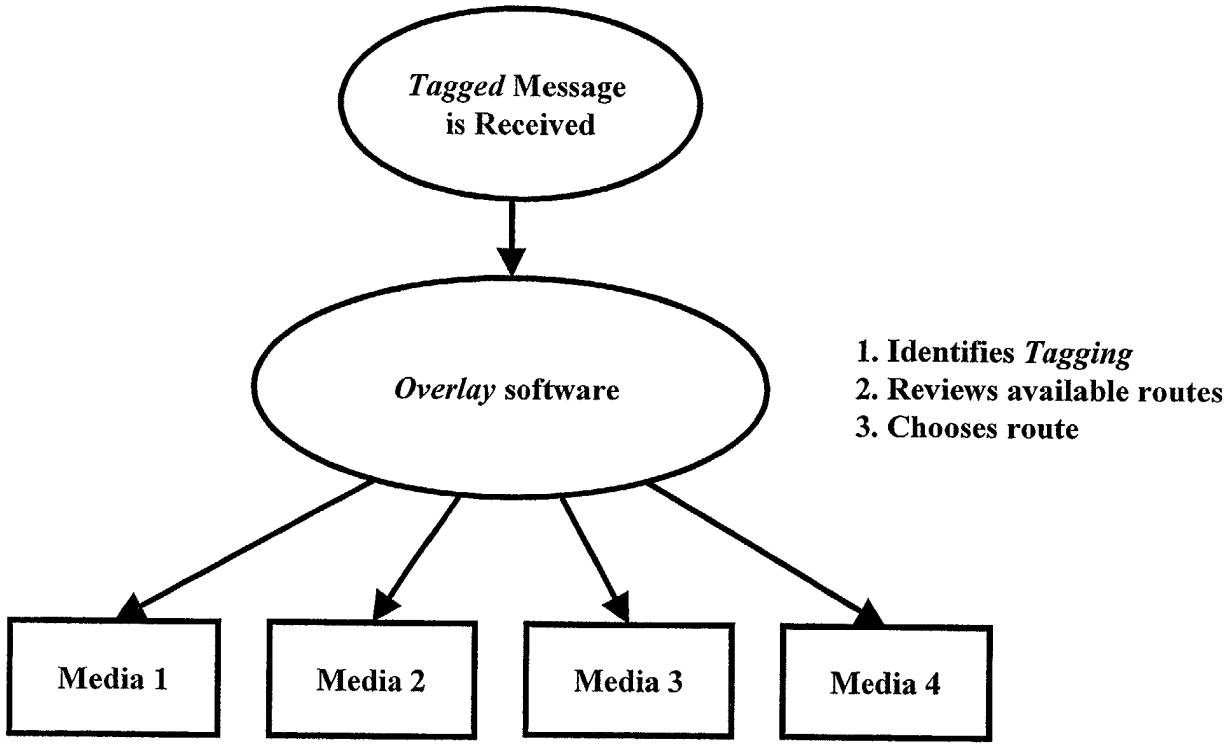
Tagged Message is Received
Overlay software
1. Identifies *Tagging*
2. Reviews available routes
3. Chooses route
Media 1
Media 2
Media 3
Media 4

Figure 3

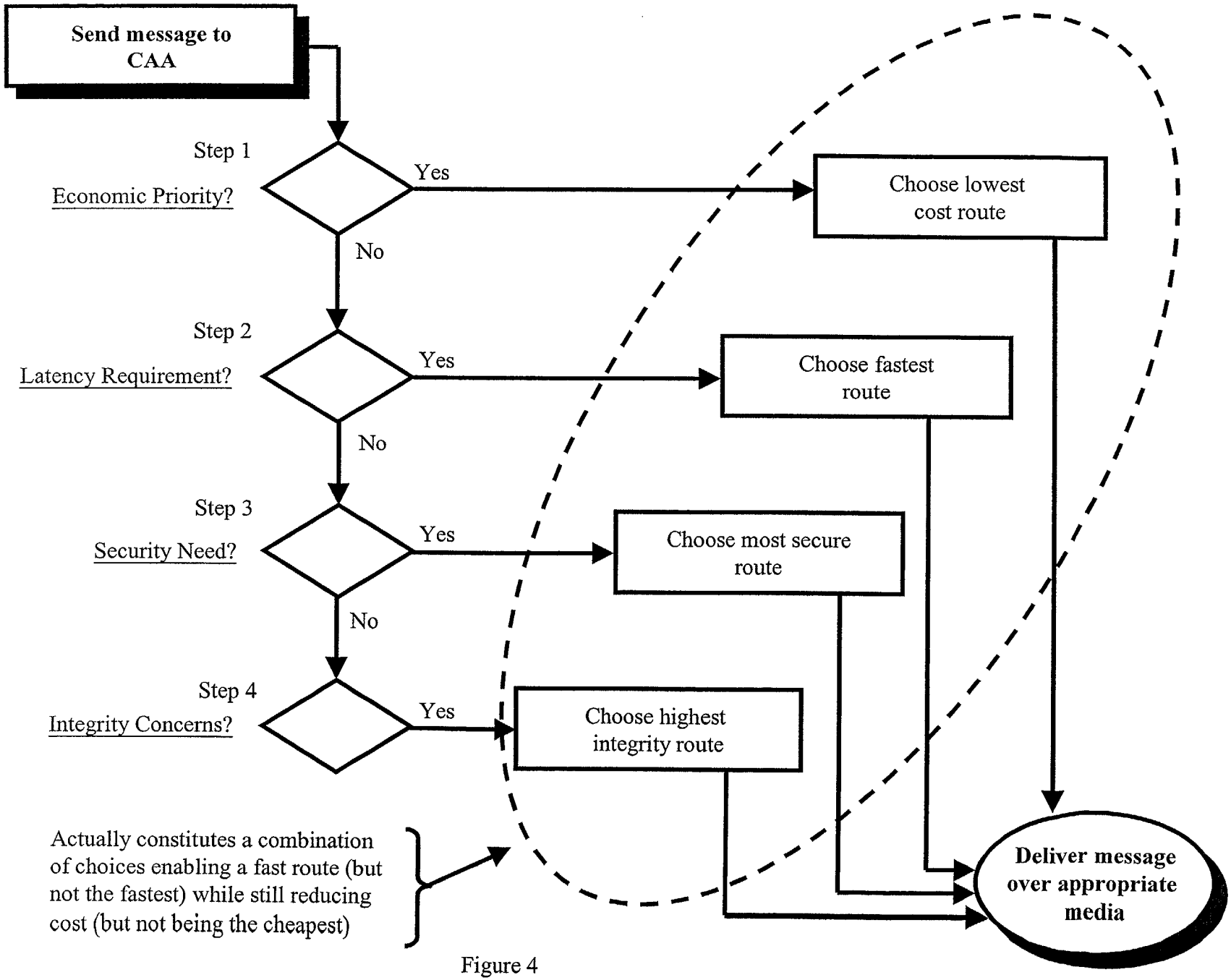
Send message to CAA
Step 1
Economic Priority?
Yes
Choose lowest cost route
No
Step 2
Latency Requirement?
Yes
Choose fastest route
No
Step 3
Security Need?
Yes
Choose most secure route
No
Step 4
Integrity Concerns?
Yes
Choose highest integrity route
Actually constitutes a combination of choices enabling a fast route (but not the fastest) while still reducing cost (but not being the cheapest)
Deliver message over appropriate media

Figure 4

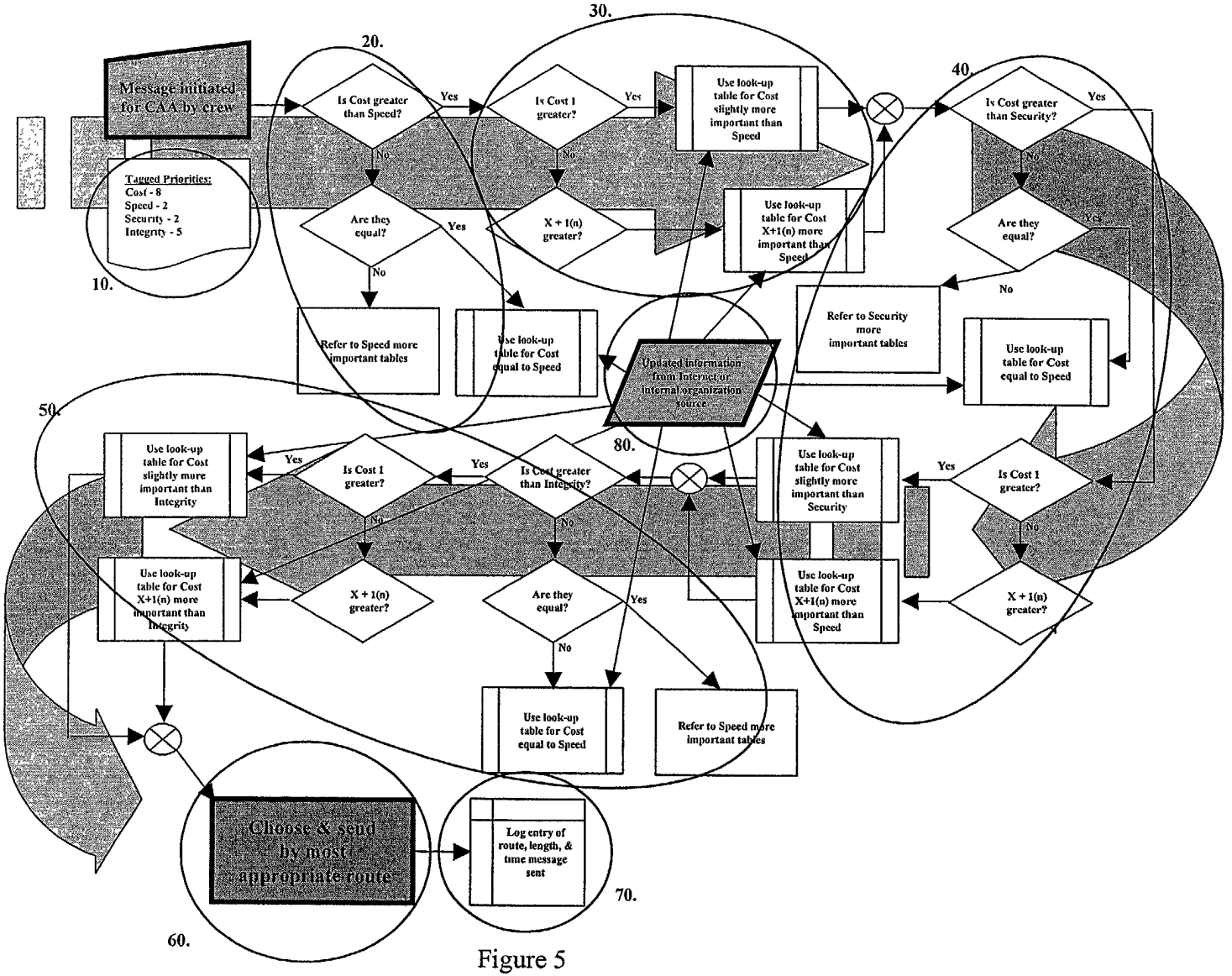
Message initiated for CAA by crew
Tagged Priorities:
Cost - 8
Speed - 2
Security - 2
Integrity - 5
10.
20.
30.
40.
50.
60.
70.
80.
Is Cost greater than Speed?
Yes
No
Are they equal?
Yes
No
Is Cost 1 greater?
Yes
No
X + 1(n) greater?
Use look-up table for Cost slightly more important than Speed
Use look-up table for Cost X+1(n) more important than Speed
Refer to Speed more important tables
Use look-up table for Cost equal to Speed
Is Cost greater than Security?
Yes
No
Are they equal?
Yes
No
Refer to Security more important tables
Use look-up table for Cost equal to Speed
Updated information from Internet or internal organization source
Use look-up table for Cost slightly more important than Integrity
Is Cost 1 greater?
Yes
No
Is Cost greater than Integrity?
Yes
No
Use look-up table for Cost X+1(n) more important than Integrity
X + 1(n) greater?
Are they equal?
Yes
No
Use look-up table for Cost equal to Speed
Refer to Speed more important tables
Use look-up table for Cost slightly more important than Security
Is Cost 1 greater?
Yes
No
Use look-up table for Cost X+1(n) more important than Speed
X + 1(n) greater?
Choose & send by most appropriate route
Log entry of route, length, & time message sent

Figure 5